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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/410,129	03/23/95	RUSSELL	D SLW-500-002U

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ART UNIT PAPER NUMBER

2608

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DATE MAILED:

01/23/96

**Please find below a communication from the EXAMINER in charge of this application.**

Commissioner of Patents

## Office Action Summary

Application No. <b>08/410,129</b>	Applicant(s) <b>Russell et al.</b>
Examiner <b>George J. Oehling</b>	Group Art Unit <b>2608</b>



Responsive to communication(s) filed on Mar 23, 1995.

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

### Disposition of Claims

Claim(s) 39-44 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 39-44 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 3 and 5

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

1. The Abstract of the Disclosure is objected to because the applicant is requested to provide the abstract in single paragraph form. Correction is required. See M.P.E.P. § 608.01(b) .

2. Claims 40, 41, 43, and 44 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Consider claims 40 and 43. The phrase "transmitting substantially only the representations for each channel in the set" is vague and indefinite.

3. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

4. Claims 39-41 are rejected under 35 U.S.C. § 103 as being unpatentable over Lappington.

Consider claims 39 and 40. Lappington discloses a cellular communication system that includes a base station (13) coupled to remote antenna sites (23-25) over a transmission medium. After receiving, at the base station, voice channel signals from a switch (12), the voice channel signals are digitized, compressed, serialized, and inserted in a transmit data frame for transmission to the remote antenna sites. Note col. 1, lines 16-24 and col. 2, lines 19-65 of Lappington. Lappington differs from the aforementioned claims of the present invention by failing to convert the digital signals received at the remote antenna sites for the transmission of analog signals to the cellular subscribers and converting the analog signals received from the antenna sites to digital signals for transmission to the base station. However, since most cellular phones in use today can communicate only in an analog mode, and since it is very well known in the art to convert between digital and analog signals, it would have been obvious to one of ordinary skill in the art to convert the digital signal to analog at the remote antenna sites (and vice versa) such that the "analog only" mobiles are able to communicate in the cellular system.

Consider claim 41. Lappington discloses transmitting the digitized representations between the base station and the remote antenna sites via a CATV network and not the switched telephone

network. However, since the switched telephone network is merely another transmission medium, it would have been obvious to one of ordinary skill in the art to transmit the digitized representations over the switched telephone network (or any other transmission medium that is able to support the digitized representations) in order to take advantage of the vast network that the PSTN provides.

5. Claims 42-44 are rejected under 35 U.S.C. § 103 as being unpatentable over Lappington in view of Bouix et al.

Consider claims 42 and 43. The modification to Lappington, as set forth in paragraph 4 of this office action applies herein. Lappington fails to teach having a digital base station wherein no analog transmitters and receivers are required. However, Bioux et al. teach, in a digital wireless communication system, an all digital base station wherein no analog transmitters or receivers are required for transmission of signals from the base station to the mobile subscribers. Therefore, it would have been obvious to one of ordinary skill in the art to use the all digital base stations of Bioux et al. in Lappington for enhanced and expanded communication capabilities to the cellular subscribers.

Consider claim 44. This claim is rejected for the same reason given for the rejection of claim 41 given above.

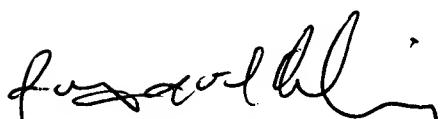
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Oehling whose telephone number is (703) 305-4835.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

The fax number for Group 2600 is (703) 305-9508.

  
G. Oehling  
January 6, 1995

  
JASON CHAN  
PRIMARY EXAMINER  
GROUP 2600